

# St. Louis Vehicle Electrification Rides for Seniors (SiLVERS)

Principal Investigator & Presenter:  
Connor Herman

Organization: Forth

June 23, 2022

Project ID: TI140



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# Project Overview

## Timeline

- Project Start Date: October 1, 2020
- Project End Date: December 31, 2023
- Percent Complete: roughly 45%

## Barriers

- Lack of awareness and exposure to electric vehicles (EVs) and charging infrastructure in St. Louis
- Unproven financial sustainability of utilizing EVs in the operations of nonprofit social service agencies
- Lack of validation that EVs can improve social service delivery

## Budget

- Total Project Funding: \$1,032,392
  - DOE Share: \$500,000
  - Cost Share: \$532,392
- Budget Period 1: October 1, 2019-December 31, 2021: \$463,150
  - Expended: \$338,531
- Budget Period 2: January 1, 2022-December 31, 2022 (expected): \$412,368

## Partners

- Forth, project lead
- St. Louis Agency on Aging (SLAAA)
- Northside Youth and Senior Service Center
- City Seniors, Inc.
- North Newstead Association
- Ameren
- AmpUp
- St. Louis Regional Clean Cities Coalition
- General Motors
- Delivery Associates

# Project Objectives

## Objectives

Measure if and how EV fleets can save CBOs (community-based organizations) and social service agencies money and improve service delivery;

Create a model for deploying EVSE that serves those fleets and can also serve employees and community members;

Showcase that pilots like this can accelerate regional EV adoption; and

Create tools and best practices so this model can be replicated by CBOs and social service agencies nationwide.

## Impact

Additional social service agencies adopt the model for their own fleets;

Improved skills and capacity of service agencies to manage their EV fleets; optimized charger usage; and reduced operating costs;

Increased EV adoption in the St. Louis market.

## VTO TI Goals

National Security  
(domestic fuel sources)

Economic Growth  
(business opportunities)

Affordability for Business and Consumers  
(cost savings, alternative fuels)

Reliability/Resiliency  
(transportation options)

Any proposed future work is subject to change based on funding levels

# Project Approach

## **Budget Period 1 (Oct. 2020 - Dec. 2021):** *Project Initiation and Launch*

- Initiation and Operations Planning
- Clarifying Fleet Requirements
- Establish Site Locations
- Secure Vehicles
- Source and Install Charging Stations
- Site Preparation
- Staff Training and Education
- Launch Program
- Data Management Planning
- Implementation of Public Use of Chargers
- Host Regional Workshop
- Introduce Project at Conferences and Workshops

## **Budget Period 2 (Jan. 2022 – Dec. 2022):** *Project Refinement*

- Present on initial Project Findings
- Host Regional Workshop
- Project Refinement
- Educational Sessions with Other Fleets
- Identify Clean Cities Coalitions for Technical Assistance

Any proposed future work is subject to change based on funding levels

# Project Approach

## Budget Period 3 (Jan. 2023 – Dec. 2023): *Project Wrap-up and Results Dissemination*

- Share Results Nationally
- Host Regional Workshops
- Refining the project model
- Provide Technical Assistance to Three Clean Cities Coalitions
- Finalize Project and Data Collection
- Produce Final Case Study

## Key Milestones

- BP1 Go/No-Go Milestone: Infrastructure complete
  - *Secure site locations*
  - *Secure 5 vehicles*
  - *Install 5 charging stations*
- BP2 Go/No-Go Milestone: Technical Assistance product offering
  - *Post first set of resources on website*
- Online Tool Development for Data and Results Dissemination
- Technical Assistance for Clean Cities Coalitions

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# Project Approach

## Components of SiLVERS

- 5 new Electric Vehicles for the fleet
  - 3 at Northside Youth and Senior Service Center
  - 2 at City Seniors, Inc
- Car insurance covered through Forth
- 5 EV chargers to be used in the fleet and by the public
  - Chargers, installation, maintenance and operation covered by program
- \$25,000 for each CBO personnel time
  - Over 3 years, covers personnel time for training in the program and promotion to community
- Technical assistance, training, and project management support
- Regional and national promotion of program
- Supplies for outreach and events

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# Milestones: Budget Period 1

All Budget Periods			
Milestone #	Milestone Description	Status	Estimated Completion
1	Kick-off Meeting with USDOE	Complete	10/27/20
Budget Period 1: October 1, 2019 1-December 31, 2020			
Milestone #	Milestone Description	Status	Estimated/Actual Completion
2	Design and Complete Project Management Plan	Complete	11/15/20
3	First Meeting of Project Team and Community Partners	Complete	1/7/21
4	Finalize Contracts	Complete	Q2 2021
5	Finalize Project Schedule	Complete	Q4 2020
6	Establish and secure site locations	Complete	Q1 2021
7	Identify and secure vehicles	Complete	Q1 2021
8	Receive the charging stations	Complete	Q3 2021
9	Install charging stations	Complete	Q3 2021
10	Secure 5 vehicles, 5 parking spaces, 5 charging stations installed with Amp	Complete	Q3 2021
11	Project kick-off event/ ribbon cutting in North St. Louis	Complete	Q3 2021
12	Initial data analyses complete and subsequent regular analyses complete	Complete	Q4 2021
13	Open up EVSE to general public	Complete	Q4 2021
14	Highlight project at 2021 Roadmap Conference	Complete	Q2 2021

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# Milestones: Budget Period 2 and 3

Budget Period 2: January 1, 2022-December 31, 2022					
Milestone #	Go/No Go #	SOPO#	Milestone Description	Estimated Start	Estimated Completion
15			Initiate and develop online toolkit	Q1 2022	Q4 2022
16	2		Identify three Clean Cities Coalitions to provide technical assistance to	Q1 2022	Q4 2022
17			EV and EVSE Data Analysis	Q3 2022	Q4 2022

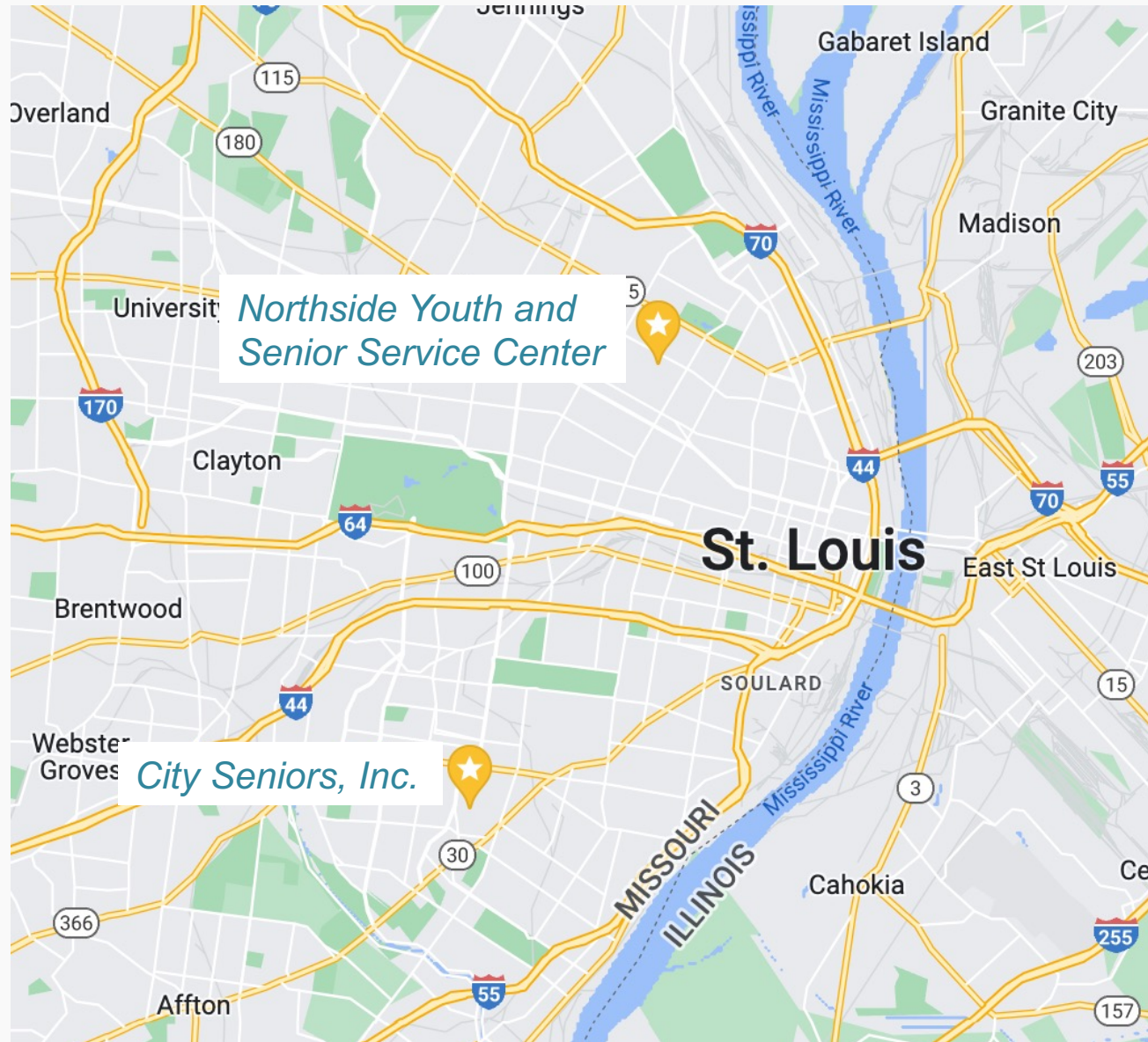
Budget Period 3: January 1, 2023-December 31, 2023					
Milestone #	Go/No Go #	SOPO#	Milestone Description	Estimated Start	Estimated Completion
18			Present at a minimum of four (4) webinars, two to clean energy networks and	Q1 2023	Q4 2023
19			Present at four (4) conferences to encourage and inform replication in other	Q4 2023	Q4 2023
20			Deliver three (3) regional workshops to encourage and inform replication in	Q3 2023	Q4 2023
21			Provide hands-on technical assistance to three other Clean Cities Coalitions	Q3 2023	Q4 2023
22			Produce Final Case Study	Q3 2023	Q4 2023

Any proposed future work is subject to change based on funding levels



# Project Accomplishments and Progress

***Establish and  
Secure Site  
Locations***



Any proposed future work is subject to change based on funding levels

# Project Accomplishments and Progress

## *Identify and Secure Vehicles*

In Quarter 1 of 2021, Forth:

- Assessed vehicle requirements and evaluated the market
- Interviewed CBO partners with questions and gathered more information about specific requirements to narrow down the available models
- In March, Forth sent a memorandum outlining our research and decision with the 2020 Chevy Bolt



Any proposed future work is subject to change based on funding levels



# Project Accomplishments and Progress

## ***Charging Station Installation***

- Request for Proposals Issued March 2021
- Charging stations acquired and construction began August 2021
- 5 stations at 2 sites installed in September 2021



Any proposed future work is subject to change based on funding levels



# Project Accomplishments and Progress

## ***Project Kick-Off Event and Project Goes Live***

- Launch event on September 30, 2022
- Virtual training for Service Agency staff and volunteers in October 2021
- CBOs began delivering meals and providing rides for seniors the end of November 2021.



Any proposed future work is subject to change based on funding levels

# Project Accomplishments and Progress

## ***Vehicle Utilization and Charging Data December 2021 – March 2022***

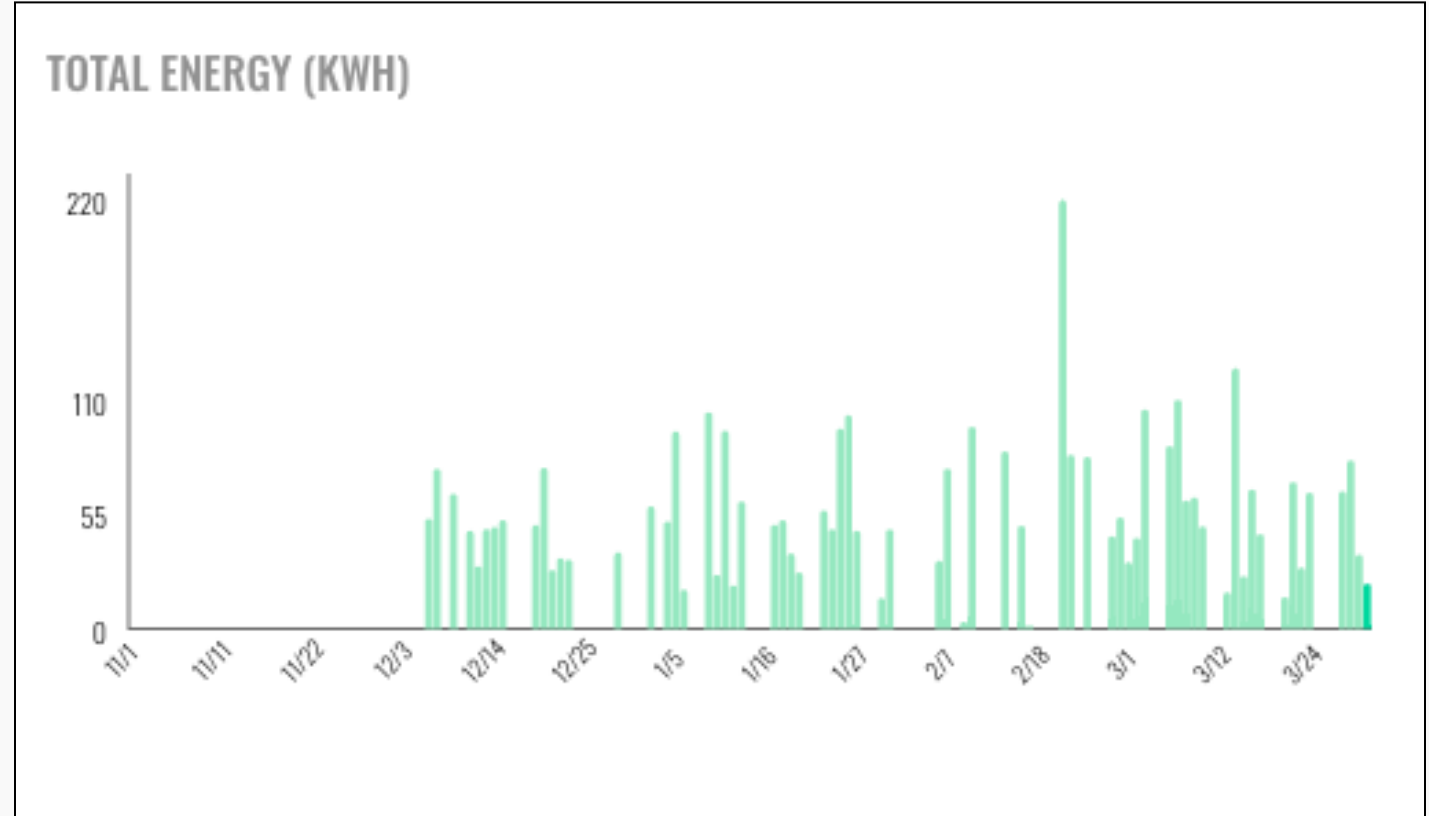
### Vehicle Utilization:

- 358 rides conducted
- 3,629 individual meals delivered

### Charging Data:

- 165 charging sessions
- 3,855 kWh total energy used
- Average energy used per session 23.37 kWh

These metrics are expected to increase greatly in 2022.



*Source: AmpUp Dashboard*

Any proposed future work is subject to change based on funding levels

# Collaboration and Coordination among Project Team

**Forth**  
Connor Herman –  
Principle Investigator  
Prime

**St. Louis Regional Clean  
Cities Coalition**  
Sub

**North Newstead  
Association**  
Sub

**St. Louis Area Agency on  
Aging**  
Sub

Northside Youth and Senior Service Center  
City Seniors, Inc.  
  
Community Partners

General Motors  
AmpUp  
Ameren  
Delivery Associates  
Natural Resource Defense Council (NRDC)  
Industry Partners

Any proposed future work is subject to change based on funding levels

# Collaboration and Coordination among Project Team

## **Forth**

Nonprofit (501c3 and 501c6)  
Project Manager

Forth has vast experience leading projects and engaging the transportation industry while grounding work within communities.

Examples include: The Clean Rural Shared Electric Mobility (CRuSE) Project; American Cities Climate Challenge, Electric Vehicle Infrastructure Partnership Program (EVIPP), Electric Tractor Pilot, Affordable Mobility Platform (AMP) Project

Forth conducts:

- Monthly calls + e-mails with community partners to provide status updates and allow for best practices sharing + program design guidance
- Quarterly check-ins with the full project team, community and industry partners to solicit feedback and suggestions for program design and improvements to inform project refinement
- Communications with VTO as required
- Coordinated effort to ensure media releases and project marketing are consistent and amplified across all partner organizations
- Presentations of SiLVERS at its annual Roadmap Conference, among others

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# Collaboration and Coordination among Project Team

## **St. Louis Area Agency on Aging**

The St. Louis Area Agency on Aging (SLAAA) provides a comprehensible and coordinated system of community-based services for older adults in the City of St. Louis. They are key in data tracking and providing payments to the participating social service partners.

## **St. Louis Regional Clean Cities Coalition**

St. Louis Regional Clean Cities Coalition bring their expertise in stakeholder engagement and a vast network of regional and national connections. They are assisting in sharing out progress and best practices of the project identifying and providing technical assistance to three additional Clean Cities Coalitions.

## **AmpUp**

AmpUp is an electric vehicle charging station software company and network provider. They procured the charging stations for SiLVERS from EV Box, and provide the software platform for managing charging station utilization data.

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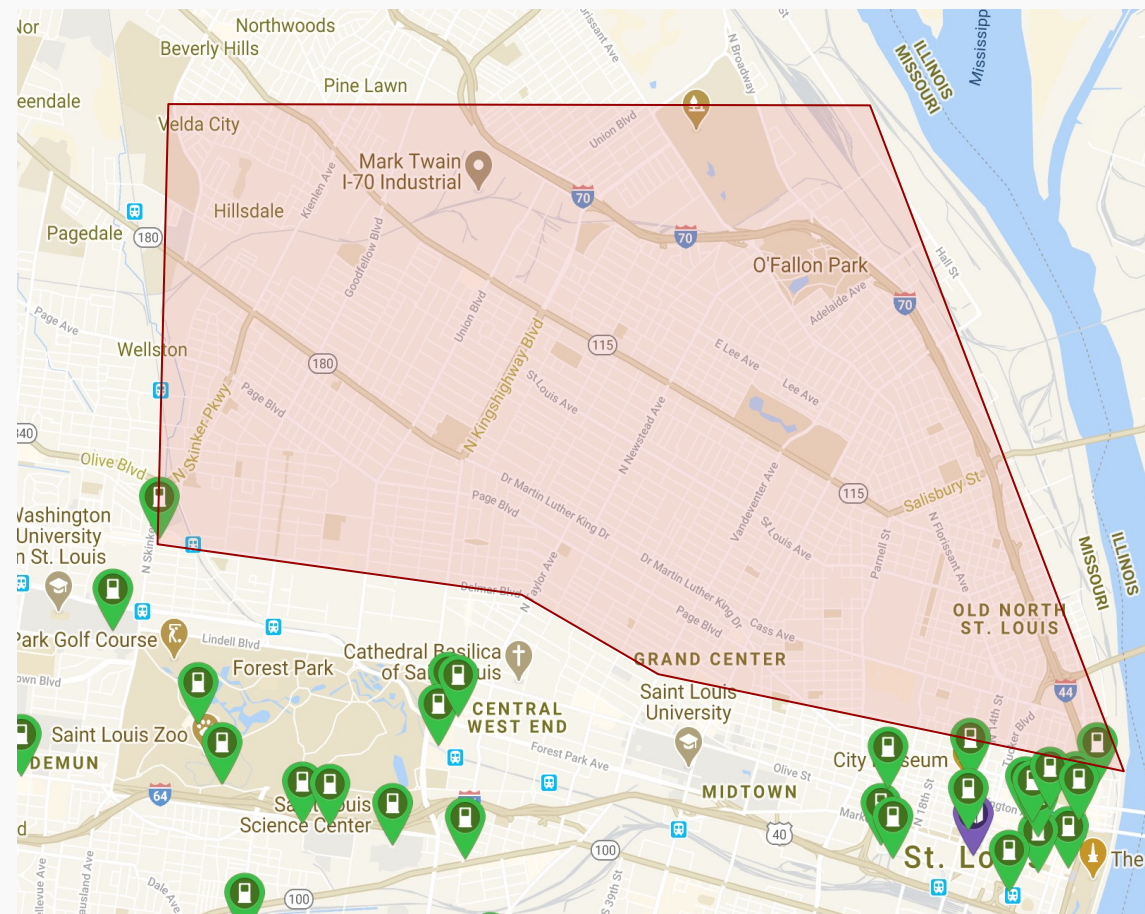


# Contribution to Energy Equity and Environmental Justice

## Project Location: North St. Louis

## Initial Demographics Being Served:

- The highest percentage of clients served, 42% of the rides provided, were provided to persons aged 65-74 (see the age report).
- 7 clients over age 84 received rides.
- 74% of clients served are female (see Gender report).
- 79% of clients served are African American.
- The average client served is a low-income African American woman in the 65-74 age range living in North City.
- 7,933 lbs of CO2 saved, also no tailpipe emissions



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# Summary

## Objectives

- Measure if and how EV fleets can save CBOs and social service agencies money and improve service delivery;
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- Showcase that pilots like this can accelerate regional EV adoption; and
- Create tools and best practices so this model can be replicated by CBOs and social service agencies nationwide.

## Collaborations

Project Team: Forth, St. Louis Agency on Aging (SLAAA), Northside Youth and Senior Service Center, City Seniors, Inc., North Newstead Association, Ameren (Electric Utility), AmpUp, St. Louis Regional Clean Cities Coalition, General Motors, Delivery Associates

## Project Accomplishments

Despite some timeline setbacks due to COVID-19, the project is launched and operational. Forth and partners have begun gathering data and will continue to document lessons learned. Forth will incorporate these learnings in presentations to external audiences with the intent of inspiring and informing replication.